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REASON & REVELATION

A Monthly Journal of Christian Evidences

MAY 2019 • VOL. 39 • NO. 5

BEHEMOTH & Leviathan

(PART I)

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BEHEMOTH AND LEVIATHAN: FIGURATIVE OR LITERAL? (Part 1)

Dave Miller, Ph.D.

Article In Brief...



Most Bible commentators contend that Behemoth and Leviathan, depicted in the book of Job, were either the hippopotamus and crocodile, or they are merely poetic, mythological devices that God used to make His point to Job. However, the contextual and linguistic data demonstrate that these two creatures were actual, historical, dinosaur-like animals.

[EDITOR'S NOTE: This article is the first installment in a two-part series. Part II will appear in the June issue of *R&R*.]

THE book of Job is certainly a fascinating book in the canon of Scripture. Though most of the book is written in standard Hebrew metrical verse, it clearly relates actual, historical events in the life of the patriarch Job.¹ After a lengthy exchange with his three “friends,” and then the shadowy figure Elihu regarding the reason(s) for Job’s suffering, God finally breaks the silence and speaks directly to Job. Why? Why did God address Job directly in chapters 38–41? In the midst of his extreme suffering, Job needed an attitude adjustment. He said some things that cast God in a questionable light. So, he needed to have his knowledge challenged and be reminded of his finite humanity. He needed to be reminded to Whom the Universe belongs. He needed to be humbled to the extent that he no longer required an explanation or expected God to give account of

Himself. After all, God is God, and we are mere humans who deserve nothing from Him (except an eternal hell which we have earned by our own behavior—Romans 6:23). Indeed, so far is He above our ability to grasp much of reality that we could not understand most of His explanations anyway (cf. Isaiah 55:8–9).

The central point of the book of Job concerns the fact that no matter what we face in this life, no matter how intense our suffering and hardship may become, when we genuinely shift our attention to **who God is**, we are enabled to cope with our suffering and successfully negotiate and survive the onslaughts of life.² It is against this backdrop and context that God brings to Job’s attention two incredible creatures: Behemoth and Leviathan. Are Behemoth and Leviathan “poetic hyperbole”? Or were they actual dinosaur-like animals that are likely³ now extinct?

Most commentators seemingly refuse to consider the possibility that Behemoth and Leviathan are extinct, dinosaur-like creatures. Most think

the hippo and crocodile are being described.⁴ Many of the English translations reflect this bias. For example, the NIV footnote for “behemoth” reads: “Possibly the hippopotamus or the elephant,” and for “leviathan” it has: “Possibly the crocodile.”⁵ For “behemoth” the ASV has: “That is, the hippopotamus,” and for “leviathan” it has “That is, the crocodile.”⁶ In stark contrast, the ESV handles the matter more in keeping with translation rather than interpretation and personal conjecture, where “behemoth” is “A large animal, exact identity unknown” and for “leviathan” “A large sea animal, exact identity unknown.”⁷

Have the crocodile and the hippopotamus been recognized in antiquity as the ferocious, formidable creatures like those depicted in the book of Job? The historical fact is that humans have hunted, subdued, and killed hippos, elephants, and crocodiles for millennia. An Egyptian painted relief from the tomb of Ti and Ptah-Hotep in Saqqara (5th Dynasty) depicts the ship’s crew harpooning hippopotami.⁸ Similarly, in Egyptian life the crocodile was easily subdued. Egyptian pharaoh Amenemhat I makes this boast of his hunting prowess: “I hunted the lion and brought back the crocodile (a prisoner).”⁹ Crocodile hunting on the Nile has been a longstanding activity, as has elephant and rhino hunting.¹⁰

Rather than trying to identify these two creatures with existing animals, others suggest that the creatures are purely fictitious, mythological creatures which function as poetic vehicles for God to make His point. They must assume, therefore, that the language is figurative and, hence, use expressions like “poetic hyperbole,” “mythopoeic language,” “hyperbolic intensity,” and “mythological heightening.”¹¹ Consequently, they are forced to deny that the language refers to literal animals. However, observe that poetic language can be used to describe literal animals. If hyperbole is used, some aspect of reality must underlie the exaggeration. There must be a **literal** characteristic to exaggerate. An analysis of the context helps to dispel the confusion.

CONTEXT: GOD'S ARGUMENT

Consider the contextual flow of the book of Job that elicits the allusions to Behemoth and Leviathan reflected in the following outline:

- 1-2 Job's disasters
- 3-31 Job's dialogues with his three friends
- 32-37 Elihu's speeches
- 38-41 God's speeches
- 42 Job's deliverance

The allusions to Behemoth and Leviathan occur among the speeches delivered by God to Job. The line of reasoning that God uses is surely decipherable to us. Job had been whining that life is not fair because of the pain and suffering he was enduring (e.g., 7:12-21). He intimated rather firmly that God needed to give account of His handling of the situation (e.g., 10:2). God proceeded to pummel Job with four chapters of rhetorical questions designed to remind Job that he is not in a position to question Deity, nor is God under any moral, legal, or ethical obligation to give account of Himself to Job. The central points with which God presses Job are that he does not **understand** nor can he **control** the created order, i.e., his knowledge and power.

God's initial response to Job (38:1-38) is to spotlight 20 features of the inanimate realm (delineated in Figure 1). Question: Even though the entire section is poetic, are these 20 phenomena **real**? Indeed, they are. Hence, the presence or absence of figurative language and poetry is not what determines the literalness of the subject matter. Consider, for example, God's remarks concerning ice and surface freezing: "The waters harden like stone, and the surface of the deep is frozen" (vs. 30). "Waters" is literal H₂O. "Harden" is also literal. "Stone," however, is figurative (simile) and even carries a flag term to help identify it as such: "like." When water freezes, does it transform into literal stone? No, but its hardened condition is **like** or reminiscent of stone. "Surface," "deep," and "frozen" are all equally literal. In like

God's Response:

FIGURE 1

Job 38:1-38 (Inanimate realm)

Earth's foundation

Ocean

Morning

Springs of the sea

Recesses of the deep

Gates of death

Expanse of the Earth

Light and darkness

Snow

Hail

Light

Wind

Rain

Thunderbolts

Dew

Ice/Surface Freezing

Constellations

Laws of the Universe

Clouds

Lightning

20

fashion, all 20 of the features of the inanimate realm to which God alludes are literal phenomena that literally exist on planet Earth. Their description, though expressed in figurative, poetic language, does not obscure the certainty of their literalness.

Next, God directs attention from the inanimate to the animal realm (38:39-41:34), initially parading before Job nine animals (see Figure 2 on p. 53). He alludes to a variety of attributes that characterize these animals, including their food sources,

birthing cycles, undomesticated temperament, seeming treatment of their young, suitability for use in human warfare, flying ability and visual acuity, etc. **These are the very characteristics that one would expect to be highlighted when alluding to each particular species being discussed.** Question: Were/are all nine of these creatures **real** animals? Do/did they actually exist? Can we sort out the difference between the literal and figurative language used to characterize them? Most certainly. Consider these questions:

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- Do lions **figuratively** or **literally** hunt prey and satisfy the appetite of their young?
- Do they **figuratively** or **literally** crouch in their dens and lie in wait?
- Do young ravens **figuratively** or **literally** wander about for food?
- Do wild mountain goats **figuratively** or **literally** bear young after a **literal** number of months?
- Do their young **figuratively** or **literally** grow strong on grain and depart not to return?
- Do wild donkeys **figuratively** or **literally** dwell in the wilderness and seemingly scorn civilization?
- Do they **figuratively** or **literally** roam the mountains and search for **literal** green things to eat?
- Was the Aurochs **figuratively** or **literally** unable to be harnessed for plowing?
- Do ostriches **figuratively** or **literally** wave their plumes as part of mating rituals?
- Do ostriches **figuratively** or **literally** leave their nest of eggs unattended?
- Do ostriches have sufficient speed to **figuratively** or **literally** outrun a horse?
- Do war horses **figuratively** or **literally** have manes, snort majestically, paw, and leap? [Note that “leap **like** the locust” is a figurative expression—but the leaping is **literal**.]
- Do they **figuratively** or **literally** face the weapons of warfare undismayed and fearlessly? [Note that “laughs at fear” is figurative.]
- Do they **figuratively** or **literally** race over the ground with rage?
- Do hawks **figuratively** or **literally** soar and stretch their wings southerly?
- Do eagles **figuratively** or **literally** make their nests on high cliffs?
- Do eagles **figuratively** or **literally** spy their food from afar?

It is self-evident that the reader is fully capable of differentiating between literal and figurative language. It is equally apparent that God referred to actually existing animals with which Job was familiar.

God's Response: FIGURE 2

Job 38:1-38 (Inanimate realm)

Job 38:39-41:34 (Animal realm)

Lion	Ostrich
Raven	War Horse
Mountain Goat	Hawk
Wild Donkey	Eagle
Wild Ox (Aurochs)	

9 Animals

Summary

After dazzling Job with the wonders of the inanimate world, and nine creatures of the animal kingdom, but before He presents His final two incomparable, preeminent marvels, God paused to draw conclusions lest Job (or we) miss the point: “Will the faultfinder contend with the Almighty? Let him who reproves God answer it” (Job 40:2, NASB). Job responded: “Behold, I am vile; what shall I answer You? I lay my hand over my mouth. Once I have spoken, but I will not answer; Yes, twice, but I will proceed no further.” Job was sufficiently familiar with the natural phenomena and the identity of the nine animals that he was impacted precisely as God intended. God added: “Would you indeed annul My judgment? Would you condemn Me that you may be justified?” (vs. 8). Job was beginning to realize that he had been out of his league in daring to question God’s management of the Universe. His personal suffering, regardless of its intensity, and even if undeserved, did not merit the demeanor that he manifested toward God. To repeat the point of the narrative: Job lacked adequate **knowledge**/comprehension and **power** to question God’s knowledge and power to manage Job’s environment.

BEHEMOTH: THE FIRST OF GOD'S WAYS

But God was not finished with him. To bring His line of reasoning to a grand culmination, God next directs Job’s attention to detailed descriptions of two additional creatures—the most magnificent, matchless spectacles of the animal kingdom. Question: if the first nine animals to which God alluded are real animals, why not Behemoth and Leviathan? And why would the identity of these two animals be so obscure or uncertain compared to the others? Look carefully at Figure 3 on p. 54 to see the way God crafted and sequentially layered His argumentation so as to climax in a superlative pinnacle.

Re-read Job 40:15-24 and answer the following questions regarding Behemoth:

- Does Behemoth **figuratively** or **literally** eat grass like an ox? [Note that Behemoth is as **literal** as an ox, but Behemoth is not an ox. The flag word “like” alerts the reader to the presence of a figure of speech. The two may be compared in the behavioral fact that both eat **literal** grass.]
- Does he **figuratively** or **literally** have strength in his hips and power in his stomach muscles?
- Does Behemoth **figuratively** or **literally** move his tail like a tree?

[Note, again, that “tail” and “cedar” are **literal**, and “like” signals a figure of speech.]

- Does he possess **literal** bones and ribs?
- Are his bones **literally** beams of bronze, and his ribs **literally** bars of iron—or are his bones **like** beams of bronze and his ribs **like** iron?
- Do the mountains **figuratively** or **literally** yield food for him?
- Do the beasts of the field **figuratively** or **literally** play there?
- Does Behemoth **figuratively** or **literally** lie under **literal** lotus trees and in **literal** reeds and marsh?
- Do the **literal** lotus trees **figuratively** or **literally** cover him with their **literal** shade, and do the **literal** willows by the **literal** brook **literally** or **figuratively** surround him?
- Does the river **figuratively** or **literally** rage without disturbing him?
- Is he **figuratively** or **literally** confident in facing the **literal** gushing waters of a **literal** Jordan river?
- Does the river **figuratively** or **literally** hit him in his eyes? Are his eyes **literal**?
- Do men **figuratively** or **literally** seek to pierce his nose with a snare? Is his nose **literal**?

Read also Job 41:1-10 regarding Leviathan, taking note of the bolded words below—

- Can you **draw out** Leviathan with a **hook**, or **snare his tongue** with a **line** which you **lower**?
- Can you put a **reed** through his **nose**, or **pierce** his jaw with a **hook**?
- Will he make many **supplications** to you? Will he **speak softly** to you?
- Will he make a **covenant** with you? Will you take him **as** a **servant** forever?
- Will you play with him **as** with a **bird**, or will you leash him for your **maidens**?
- Will your **companions** make a **banquet** of him? Will they apportion him among the **merchants**?
- Can you fill his **skin** with **harpoons**, or his **head** with **fishing spears**?
- Indeed, any hope of overcoming him is in vain; shall one not be **overwhelmed** at the sight of him?
- No one is so **fierce** that he would dare **stir** him up.

Observe that every one of the words in bold in this latter passage have a **literal** import except “servant” and “bird”—and these are flagged in the text by “as” to signal metaphorical imagery.

BEHEMOTH’S ANATOMY

Observe that the point of God’s argumentation is not served if (1) Behemoth and Leviathan are imaginary animals or (2) they **are** actual animals, but their prominence is exaggerated, overstated, or misrepresented. The first nine animals that God urged Job to contemplate were known for their mysterious, unique, inexplicable, and independent behaviors—and God did not embellish those attributes or convey them with “mythological heightening” or “hyperbolic intensity.” Next He directs Job’s mind to His most powerful, awesome, formidable, uncontrollable creatures—in keeping with His desire to impress Job with his own feeble inability to operate, manage, understand, explain, or control his surroundings, let alone expect God to give account of Himself. The focus is on **size** and **power**. When God ordered Job to “look now at behemoth, **which I made along with you**,” Job would never have derived from such a forthright statement that Behemoth is imaginary. Indeed, God settled the point that if Behemoth is not real, then Job is not real. If Behemoth is “mythopoeic,” then Job is likewise “mythopoeic.” **God made both of them**. Since the Bible teaches that Job really lived (Ezekiel 14:14; James 5:11), it undeniably follows that Behemoth was as real, literal, and historical as was Job.

Consider three of Behemoth’s attributes that God chose to highlight: its stomach muscles, its tail, and its bones.

(1) “See now, his strength is in his hips, and his power is in his stomach muscles” (40:16). It is true that elephants and hippopotami have sizable stomach muscles—when compared to other animals living today. However, their stomach muscles do not even begin to compare with the belly muscles of *Diplodocus* or *Amphicoelias*, whose massive stomachs were larger than an entire elephant. *Seismosaurus*, which means “Earthquake Reptile,” was so named because it was large enough that it may actually have shaken the ground as it walked. Looking upward

(cont. on p. 56)



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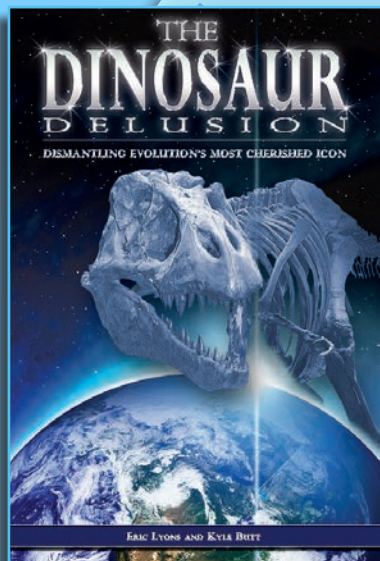


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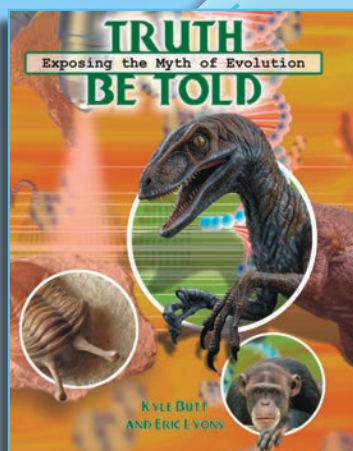
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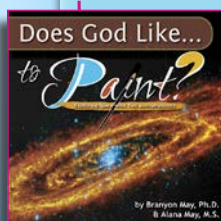


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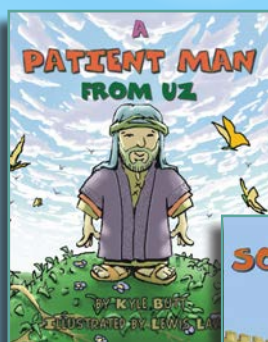
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at its underside, alone, would have intimidated humans by its enormity, causing them to feel helpless and fearful in the face of such ponderous muscular power.¹²

(2) “He moves his tail like a cedar; the sinews of his thighs are tightly knit” (40:17).¹³ Why did God compare Behemoth’s tail to a cedar tree? To answer that question we must turn to the Bible’s definition of a cedar tree. Were the cedars of the Bible **big**? They absolutely were, as numerous verses demonstrate.¹⁴ These passages accentuate the cedar’s superior attributes of height, strength, stature, and majesty.¹⁵ When one examines the farcically **tiny** tails of the hippo, elephant, rhino, and mammoth, it is immediately evident that these animals are not under consideration. However, even a casual consideration of the tails of the larger dinosaurs—*Apatosaurus*, *Argyrosaurus*, *Supersaurus*, or *Seismosaurus* (with its prodigious tail designed to defend itself against would-be attackers)—quickly provides ample proof of the animal being described by God. Indeed, why would God call Job’s attention to an appendage of a hippo?¹⁶ If He sought to dazzle Job with His creation, would He not spotlight characteristics **for which that animal is particularly distinguished**? The sauropods are known for their colossal, titanic tails.

(3) “His bones are like beams (tubes—NASB) of bronze, His ribs like bars (rods—NASB) of iron” (40:18). This

creature’s skeletal structure was clearly framed to possess exceptional stability and strength. Compared to humans, dinosaurs were gigantic. Whereas a hippo weighs three to four tons, a rhinoceros one to two tons, and an elephant five to seven tons, *Argentinosaurus* weighed 80-100 tons. Such size necessarily requires a framework of sturdy, brawny bones to accommodate such weight and mass. When one examines the skeletal structure of any of the larger dinosaurs, one is immediately awed by the massive size of all its bones. An *Apatosaurus* femur alone was as tall as a six-foot man—with a *Titanosaurus* femur even longer.¹⁷

Observe that the attributes selected by God to highlight the identity of Behemoth were specifically pinpointed and calculated to accentuate the unique features of this incredible creature, eliciting God’s summary statement of Behemoth: “He is the first of the ways of God” (40:19). The underlying Hebrew word translated “first” refers to size, mass, weight, bulk, force, or strength.¹⁸ God challenged Job with his inability to tame, subdue, or control this massive creature (even as Leviathan is noted for its ferocity). Look again at the phrase: “Only He who made him can bring near His sword” (vs. 19). The implication is that humans would have great difficulty bringing down this creature.

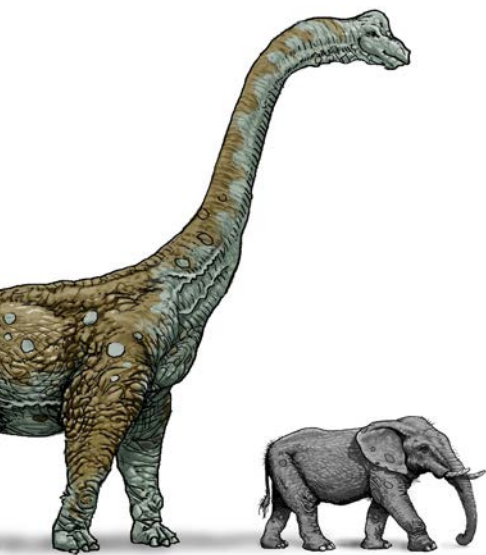


Reconstructed front foot of *Ultrasauros*

The reason God directed Job’s attention to Behemoth is obvious: the gargantuan creature was of such stature and strength that only the Creator could control it. In order for God’s argument to make sense or carry any weight with Job, Behemoth must be **real** and of such imposing, even ominous enormity, and of such immense, powerful proportions that, without hesitation, Job would acknowledge his own helpless, measly condition before God. Neither a hippo nor an elephant would evoke such an admission. A dinosaur would. Consider the comparative chart below (Figure 4).¹⁹

Behemoth was apparently some type of dinosaur. In the words of Hebrew lexicographer Benjamin Davidson, this wild beast was “some stupendous quadruped.”²⁰

[to be continued]



Behemoth (Job 40)		FIGURE 4	
Attributes	Hippo	Elephant	Dinosaur
Eats grass (herbivore)	✓	✓	✓
Powerful stomach muscles	?	?	✓
Moves tail like a cedar			✓
Bones/ribs like iron/bronze			✓
First/chief of God’s ways			✓
Only Creator can approach			✓
Mountains yield food to him		✓	✓
Lies under Lotus trees/marsh	✓	✓	✓
Raging river does not disturb	?	?	✓
Unaffected by piercing snare			✓

ENDNOTES

- ¹ Job is consistently treated in Scripture as an actual historical personage—by both the prophet Ezekiel (14:14,20) and the New Testament writer James (5:11). See Eric Lyons (2013), “The Historicity of Job,” *Reason & Revelation*, 33[1]:2-4,8-11, January.
- ² See Dave Miller (2015), *Why People Suffer* (Montgomery, AL: Apologetics Press).
- ³ I say “likely” in view of the fact that oceanographers tell us that 95% of the Earth’s oceans remain unexplored by humans. Despite sophisticated satellite radar mapping of the ocean floor, the “contents” of the sea are still largely unknown: “If our questions are: ‘What does it look like down there?’ or: ‘What’s going on down there?’ then the area that has been ‘explored’ is arguably even less than the 0.05% mapped so far at the very highest resolution by sonar”—Jon Copley (2014), “Just How Little Do We Know about the Ocean Floor?” *Scientific American*, October 9, <https://www.scientificamerican.com/article/just-how-little-do-we-know-about-the-ocean-floor/>. “More than **eighty percent** of our ocean is **unmapped, unobserved, and unexplored**”—NOAA (2017), “How Much of the Ocean Have We Explored?” National Ocean Service Web site, October 5, emp. in orig., <https://oceanservice.noaa.gov/facts/eutrophication.html>.
- ⁴ Keep in mind that knowledge of the existence of the dinosaurs in modern times occurred only in the 19th century when bones were discovered and the term “dinosaur” was coined. Hence, one would not expect earlier Bible commentators to associate Behemoth or Leviathan with dinosaurs or dinosaur-like creatures. Their efforts to ascertain the identity of these two animals was limited by their awareness of the extant, contemporaneous animal population. This unnecessary limitation continues to have its residual effects among commentators who do not seem to be able to conceptualize the ancient world of Job’s day.
Now that we know that dinosaurs existed, and that the description of Behemoth fits their physical attributes perfectly, the more perplexing question becomes: “why are commentators insistent on maintaining the belief that the hippo and crocodile are intended?” The only answer this writer can imagine is that many theologians have been adversely influenced by evolutionary propaganda—taught throughout the American public school system now for three generations—that dinosaurs went extinct over 60 million years before humans evolved and, hence, humans did not live contemporaneously with dinosaurs, and no human ever saw a living dinosaur. It is truly tragic when we allow fallible extra-biblical assumptions to trump God’s Word as plainly taught in Scripture. The fact of the matter is that the dating techniques used by evolutionists have been debunked as severely flawed, completely undermining the “deep time” assumptions on which evolutionary theory is constructed. For a concise refutation, see Jeff Miller (2019), “21 Reasons to Believe the Earth is Young,” *Reason & Revelation*, 39[1]:2-5,8-11, <http://apologeticspress.org/apPubPage.aspx?pub=1&issue=1287>; see also NASA nuclear engineer Michael Houts (2015), “Assumptions and the Age of the Earth,” *Reason & Revelation*, 35[3]:26-29,32-34, <http://apologeticspress.org/apPubPage.aspx?pub=1&issue=1185>.
- ⁵ *The Holy Bible, New International Version* (1978), (Grand Rapids, MI: Zondervan), p. 497.
- ⁶ *The Holy Bible Containing the Old and New Testaments: American Standard Version* (1901), (New York: American Bible Society), pp. 590-591, italics in orig. The RSV has “Or the hippopotamus” and “Or the crocodile.” Also the NASB.
- ⁷ *The Holy Bible English Standard Version* (2001), (Wheaton, IL: Crossway Bibles), pp. 534-535.
- ⁸ Ferdinand Justi and Morris Jastrow (1905), *A History of All Nations from the Earliest Times: Egypt and Western Asia in Antiquity* (Philadelphia, PA: Lea Brothers), 1:89, https://archive.org/stream/historyofallnati01andr/historyofallnati01andr_djvu.txt. For additional examples in the tombs of the First Dynasty in the Valley of the Kings, see www.phouka.com/pharaoh/PharaohOutline.doc.
- ⁹ G. Maspero (1873), “The Instructions of King Amenemhat to His Son Useratesen I. XIIth Dynasty,” in *Records of the Past: Being English Translations of the Assyrian and Egyptian Monuments* (London: Samuel Bagster & Sons), 2:14, <https://apologeticspress.page.link/RecordsofthePast>.
- ¹⁰ Sir Samuel Baker (1868), *The Nile Tributaries of Abyssinia, and the Sword Hunters of the Hamran Arabs* (London: Macmillan), pp. 161ff.,224-225,373ff., <https://apologeticspress.page.link/The-Nile-Tributaries-of-Abyssinia>.
- ¹¹ See, for example, *The Expositor’s Bible Commentary* series, representing conservative scholarship, in which Smick discusses the “mythopoeic language” he thinks characterizes the book (pp. 863ff), claiming that in the allusions to Behemoth and Leviathan “only mythological terminology is used to present graphic descriptions of the powers of evil such as the Satan in the Prologue”—Elmer Smick (1988), “Job” in *The Expositor’s Bible Commentary* (Grand Rapids, MI: Zondervan), 4:1049. See also Gregory Parsons (1981), “Literary Features of the Book of Job,” *Bibliotheca Sacra*, 138[551]:218-220, July; Elmer Smick (1970), “Mythology and the Book of Job,” *Journal of the Evangelical Theological Society*, 13:106; Elmer Smick (1978), “Another Look at the Mythological Elements in the Book of Job,” *Westminster Theological Journal*, 40[2]:215ff., Spring; James Williams (1992), “The Theophany of Job,” in *Sitting with Job: Selected Studies on the Book of Job*, ed. Roy Zuck (Eugene, OR: Wipf & Stock Publishers), p. 367; R. Laird Harris (1992), “The Doctrine of God in the Book of Job,” in *Sitting with Job: Selected Studies on the Book of Job*, ed. Roy Zuck (Eugene, OR: Wipf & Stock Publishers), p. 165. Also G.R. Driver (1956), *Canaanite Myths and Legends* (Cleveland, OH: Clark).
- ¹² An interesting side note is seen in the incident in which an elephant flipped a fully-grown mother hippo several feet into the air, showing its superior strength and agility compared to hippopotami—Tara Brady (2013), “Angry Elephant Flips Mother Hippopotamus into the Air with Its Trunk as She Tries to Protect Her Calf,” *Daily Mail*, November 11, <http://www.dailymail.co.uk/news/article-2500717/Angry-elephant-flips-mother-hippopotamus-air-trunk-tries-protect-calf.html>.
- ¹³ English translations are fairly uniform in their treatment of the terms “moves,” “tail,” and “cedar”: “Its tail sways like a cedar” (NIV); “He makes his tail stiff like a cedar” (ESV/NRSV); “He moveth his tail like a cedar” (KJV/WEB); “He carries his tail like a cedar” (NAB); “He bends his tail like a cedar” (NASB/YLT); “Its tail is like a cedar tree” (NCV); “He moves his tail like a cedar tree” (NLV); “He moveth his zanaav (tail) like a cedar branch” (OJB); “He constraineth his tail as a cedar (His tail standeth up like a cedar)” (WYC). However, the English words “stiff” (ESV/NRSV) and “branch” (OJB) constitute translator interpretation and lack linguistic justification.
- ¹⁴ 1 Kings 7:1-3; 2 Kings 19:23; cf. Isaiah 2:13; 37:24; Ezekiel 17:3,22-23; 31:3-5.
- ¹⁵ For more discussion, see Dave Miller (2011), “Behemoth: A Tail Like a Cedar?” *Reason & Revelation*, 31[12]:122-124, December, <http://apologeticspress.org/apPubPage.aspx?pub=1&issue=1010>.
- ¹⁶ The whimsical assertion that the appendage being highlighted is the hippo’s sex organ, besides being linguistically indefensible, faces precisely the same hermeneutical obstacle as the hippo’s tail: compared to a dinosaur, a hippo’s sex organ is, at the very least, quaint, if not ludicrous. See Eric Lyons and Kyle Butt (2008), *The Dinosaur Delusion* (Montgomery, AL: Apologetics Press), pp. 123-124; John Hartley (1988), *The Book of Job* (Grand Rapids, MI: Eerdmans), p. 525.
- ¹⁷ Amber Jamieson (2016), “World’s Biggest Dinosaur Skeleton Unveiled in New York,” *The Guardian*, January 14, <https://www.theguardian.com/science/2016/jan/14/new-species-gigantic-dinosaur-titanosaurus-unveiled-new-york>. The University of Kansas Geological Survey reported: “The thigh bone of the largest species of Dinosaurs, from Wyoming, was over six feet in length, and weighed, as petrified, over 1100 pounds”—Samuel Williston (1898), “Dinosaurs,” in *The University Geological Survey of Kansas, Paleontology* (Topeka, KS: J.S. Parks), 4:68. The *Argyrosaurus* femur pictured on the front cover of this issue of *R&R* was unearthed in 1924 during the Captain Marshall Field Expedition by C. Harold Riggs in the San Bernardo Hills of Argentina. Specimens of this dinosaur have been found in which the femur is two meters—**over six and a half feet long**. The femur of an *Antarctosaurus giganteus*, exhibited at the Museo de Law Plata in La Plata, Argentina, is 2.31 meters—**over seven and a half feet long**. See Fernando Novas (2009), *The Age of Dinosaurs in South America* (Bloomington, IN: Indiana University Press), p. 217.
- ¹⁸ Dave Miller (2008), “The First of the Ways of God,” *Apologetics Press*, <https://www.apologeticspress.org/APContent.aspx?category=9&article=2417&topic=59>.
- ¹⁹ The question mark in the chart for the elephant’s stomach muscles flags the fact that elephants are not known for strong stomach muscles. In stark contrast, they have incredibly strong trunks composed of thousands of muscles. Likewise, the other question marks flag the fact that the hippo and elephant attributes are negligible in comparison to a dinosaur.
- ²⁰ Benjamin Davidson (1848), *The Analytical Hebrew and Chaldee Lexicon* (Grand Rapids, MI: Zondervan, 1970 reprint), p. 68. Also *Hebrew-English Lexicon* (no date), (London: Samuel Bagster), p. 32.

Does Distant Starlight Prove an Old Universe?

Jeff Miller, Ph.D.

THE Bible indicates that the Universe is roughly 6,000 to 10,000 years old.¹ The speed of light is 186,282 miles per second. A light year is the distance light travels in one year—5.88 trillion miles. If we can see light from stars that are over 13 billion light years away, doesn't that imply that those stars have to be at least that old in order for their light to have time to reach the Earth? Does distant starlight disprove the Bible?

As with any technique that is used by old-Universe advocates, the use of distant starlight to prove an old Universe relies on a uniformitarian-based assumption. Uniformitarianism is the belief that processes and rates that are occurring today (in geology, for instance) have always occurred in the same manner and intensity throughout time—the present is the key to understanding the past. In this case, an assumption is made that the light from distant stars has always traveled at the same rate and in the same manner that we observe in nature today, and that it traveled the full distance from star to Earth naturally. If the biblical model is true, however, that assumption would most certainly not be valid.

At least four possible explanations have been advanced by Creation

scientists in response to the supposed “starlight travel time dilemma”:

1. **Inconstant speed of light:** While modern physics assumes that the speed of light is a constant, various scientists have discovered compelling evidence that suggests the speed of light is not constant under certain circumstances (especially circumstances of the past).² While the research on this possibility is too new to boldly proclaim as the ultimate answer to the problem, the fact that legitimate evidence exists to support an inconstant speed of light is significant. If it could change a little, who's to say it couldn't change a lot under the right circumstances? Could light have traveled faster in the past, allowing distant starlight to reach us quicker?
2. **Anisotropic Synchrony Convention:**³ When developing his famous relativity physics, Einstein showed that objectively measuring the speed of light in one direction **is not possible**. Calculating the **roundtrip** speed of light is possible, but it is an assumption to say that light traveled at the same speed the first half of the trip as it did the second half. Einstein, therefore, noted that the one-way speed of light is actually a convention that can be **chosen** at will. Physicists today merely assume that the speed of light

is the same in any direction—forward and backwards (to make things simpler)—but it is an assumption to do so. According to Einstein's work, one could just as easily decide that light **does not** travel the same in all directions, as long as the roundtrip average of the speed of light equals 186,282 miles per second. Thus, according to the actual evidence, the movement of the light from a distant star to Earth could be chosen to be **instantaneous** without contradicting the evidence, as long as it travels at 186,282 miles per second on the way back to the star. The implication would be that, when looking at the light from a distant star, we are not seeing things from millions or billions of years ago, but rather, we are seeing the star and its behavior at present, in real time.

3. **Mature light:** It is clear that God created a miraculously mature Universe.⁴ Adam and Eve were not zygotes when formed, but individuals who were “old” enough from the beginning to tend the Garden (Genesis 2:15), understand God's prohibition about eating from the forbidden tree (Genesis 2:17), carry out biological classification (Genesis 2:19-20), and even procreate as God commanded (Genesis 1:28). Trees were already bearing fruit, since Adam and Eve needed to eat them to survive. Similarly, it is possible that God simply created the stars with their light already in place from the beginning so that they could be used for the purpose God intended for them—for light and for humans to use to reckon time (Genesis 1:14-16). It is likely that the stars, when created, would have been created in different states of growth in order to (1) teach humans about how the Universe works (Psalm 111:2; 19:1; Genesis 15:5; Romans 1:20),⁵ and (2) to allow the Universe to function fully as the machine God intended it to be, with all of its interworking parts functioning in sync from the beginning.



4. **Rapid creative process:** In describing the miraculous creation of the plants on day three of Creation week, God said, “Let the earth **bring forth**” the plants, and “the earth **brought forth**” the plants. Some creationists have suggested that such terminology might imply the use of a process with regard to the creation of the plants (albeit a rapid one), rather than an immediate creation of the plants—similar to what a time lapse video would look like. It is possible that a similar accelerated process was used in the creation of the stars, allowing a rapid “aging” of stars and the movement of their light.⁶ It is true that such a process would require miraculous activity on God’s part, and too quickly appealing to the possibility of miraculous activity as an explanation for unexplained phenomena can lead to false conclusions, scientific laziness, and a lack of valuable knowledge about the natural realm and God’s amazing glory as reflected therein. It is also true in this case, however, that the scriptural context not only allows for such miraculous activity regarding the stars’ creation, but possibly even implies it. After all, the entirety of Genesis one is Moses’ description of the many **supernatural creative acts** that God engaged in during the Creation week. To suggest that the creation of the stars and their light was **not** supernatural would seem to

be more farfetched than to suggest that they were.⁷

Regardless of the details of how it was done, Scripture is clear that God created the stars on the fourth literal day of Creation week a few thousand years ago and humans could immediately use their light for the purposes God intended. Science does not disprove that contention since there are several reasonable explanations that could explain how distant starlight could have been in place on Earth in literally no time at all.

ENDNOTES

- ¹ Jeff Miller (2019), “21 Reasons to Believe the Earth is Young,” *Reason & Revelation*, 39[1]:2-11.
- ² João Magueijo (2003), *Faster Than the Speed of Light* (New York: Perseus); Jesse Emspak (2013), “Speed of Light May Not Be Constant, Physicists Say,” *LiveScience*, April 27, <https://www.livescience.com/29111-speed-of-light-not-constant.html>; Andrew Grant (2015), “Speed of Light Not So Constant After All,” *ScienceNews*, 187[4]:7, February 21, <https://www.sciencenews.org/article/speed-light-not-so-constant-after-all>; Stuart Clark (2017), “Cosmic Uncertainty: Is the Speed of Light Really Constant?” *New Scientist*, March 1, <https://www.newscientist.com/article/mg23331150-200-cosmic-uncertainty-is-the-speed-of-light-really-constant/>; P.C.W. Davies, T.M. Davis, and C.H. Lineweaver (2002), “Black Holes Constrain Varying Constants,” *Nature*,

418:602-603, August 8.

- ³ Jason Lisle (2010), “Anisotropic Synchrony Convention—A Solution to the Distant Starlight Problem,” *Answers Research Journal*, 3:191-207, <https://assets.answersingenesis.org/doc/articles/pdf-versions/arj/v3/anisotropic-synchrony-convention.pdf>.
- ⁴ Eric Lyons (2011), “Common Sense, Miracles, and the Apparent Age of the Earth,” *Reason & Revelation*, 31[8]:77-80.
- ⁵ In 1987, a supernova (an exploding star) occurred at a location believed to be some 200,000 light years away, implying that the explosion happened 200,000 years ago (assuming the constant speed of light). If Earth is less than 10,000 years old, however, that means the supernova never actually happened—i.e., scientists observed the light from an event that never happened—giving many honest individuals pause. In order for God to teach humans about the “life” and “death” of a star, however, God would have to create stars (and star light) in different stages of their “life” (or travel) from the beginning, since humans would not have enough time on Earth to see the full life cycle of a star in a natural way.
- ⁶ Danny Faulkner (2013), “A Proposal for a New Solution to the Light Travel Time Problem,” *Answers Research Journal*, 6:279-284, <https://assets.answersingenesis.org/doc/articles/pdf-versions/arj/v6/light-travel-time-problem.pdf>.
- ⁷ Other theories have been proposed by Creation scientists to explain distant starlight which are currently being researched, including gravitational time dilation models [e.g., D. Russell Humphreys (1994), *Starlight and Time* (Colorado Springs, CO: Master Books); John Hartnett (2015), “A Biblical Creationist Cosmogony,” *Answers Research Journal*, 8:13-20, <http://www.answersingenesis.org/arj/v8/creationist-cosmogony.pdf>].

SPEAKING SCHEDULES

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Eric Lyons

May 3-5

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May 5

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May 19

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Jeff Miller

May 11

Lexington, KY

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May 19

Cedar Hill, TX

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NOTE FROM

The Editor



Spring Clearance Sale!



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If you have put off purchasing one or more AP products, now is the time to take advantage of this sale and acquire the items you have been wanting. What's more, this is a perfect opportunity for you to purchase products that would serve as excellent gifts to give to others. You might even stock up on items that you can then give to others throughout the year. In so doing, not only will you be showing your love and concern for the recipient, you will also make them aware of the work of AP and the resources that are available to assist them in their own spiritual journey.

The details may be found in the centerspread of this issue. Please take a moment to peruse the possibilities.

Dave Miller